

6202.0 - Labour Force, Australia, Feb 2004

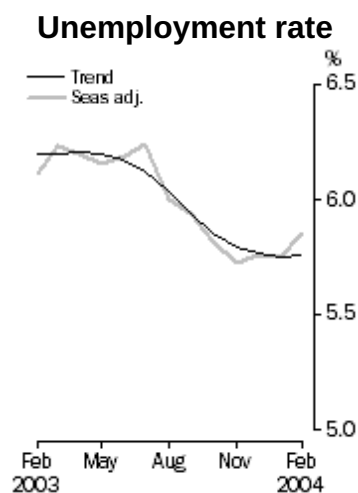
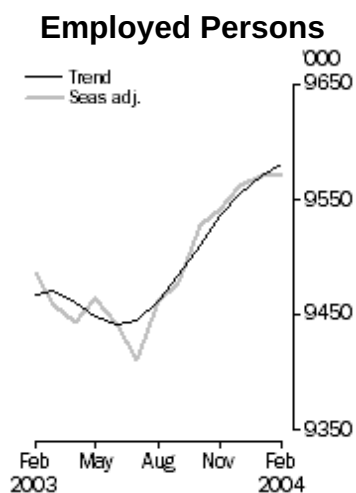
Previous ISSUE Released at 11:30 AM (CANBERRA TIME) 11/03/2004

Summary

Main Features

February Key Figures

	Jan 2004	Feb 2004	Jan 04 to Feb 04	Feb 03 to Feb 04
Trend				
Employed persons ('000)	9,571.6	9,580.9	9.3	1.2%
Unemployed persons ('000)	584.4	585.8	1.4	-6.4%
Unemployment rate (%)	5.8	5.8	0.0pts	-0.4pts
Participation rate (%)	63.5	63.5	0.0pts	-0.5pts
Seasonally Adjusted				
Employed persons ('000)	9,571.4	9,572.7	1.3	0.9%
Unemployed persons ('000)	584.3	595.4	11.1	-3.6%
Unemployment rate (%)	5.8	5.9	0.1pts	-0.3pts
Participation rate (%)	63.5	63.5	0.0pts	-0.6pts



February Key Points

TREND ESTIMATES (Monthly Change)

- EMPLOYMENT increased to 9,580,900.
- UNEMPLOYMENT increased to 585,800.
- UNEMPLOYMENT RATE remained at 5.8%.
- PARTICIPATION RATE remained at 63.5%.

SEASONALLY ADJUSTED ESTIMATES (Monthly Change)

EMPLOYMENT

- increased by 1,300 to 9,572,700. Full-time employment decreased by 13,100 to 6,848,300 and part-time employment increased by 14,400 to 2,724,500.

UNEMPLOYMENT

- increased by 11,100 to 595,400. The number of persons looking for full-time work increased by 5,700 to 431,200 and the number of persons looking for part-time work increased by 5,400 to 164,200.

UNEMPLOYMENT RATE

- increased by 0.1 percentage point to 5.9%. The male unemployment rate increased by 0.1 percentage point to 5.6% and the female rate increased by 0.1 percentage point to 6.2%.

PARTICIPATION RATE

- remained at 63.5%.

Notes

CHANGES THIS MONTH

Estimates for prior periods have been revised using updated population benchmarks based on results from the 2001 Census of Population and Housing, and incorporating a minor change to the definition of unemployed persons. See page 3 for more details.

CAI IMPLEMENTATION

In October 2003, the ABS began the progressive implementation of computer assisted interviewing (CAI) into the LFS. Under CAI, interviewers record responses directly onto an electronic questionnaire in a laptop computer.

For the period October 2003 to January 2004 the CAI method was used on a random 10% sub-sample of survey interviews. The remaining 90% of interviews each month were conducted using the traditional 'pen and paper' method.

The ABS had planned to increase the sub-sample of survey interviews conducted using the CAI method from 10% to 40% in February 2004. However, a number of technical problems has prevented this. The CAI sub-sample was increased from 10% to 40% in February 2004 in New South Wales, Victoria, South Australia and the Australian Capital Territory only.

Nationally this represents an increase in CAI interviews from 10% to about 28%. The effects of these technical problems may delay the full implementation of CAI.

The change in the interviewing method is not expected to affect published estimates in any meaningful way. Nonetheless, the ABS is monitoring the situation carefully and has conducted a range of analyses on each month's data. These analyses have confirmed that any effect that the change in interview method may have had on survey responses to date has not materially affected the aggregate estimates for any month.

Subject to further analysis continuing to confirm that the change in method is not having a significant impact on survey estimates, the ABS intends to progressively increase the use of CAI. Users will continue to be informed of the progress of CAI implementation, including the results of further analyses, through updates in this publication.

Inquiries

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Michael Johnson on Canberra (02) 6252 6525.

Changes This Month

Introduction

LFS estimates of persons employed, unemployed and not in the labour force are calculated in such a way as to add up to independent estimates of the civilian population aged 15 years and over (population benchmarks). These population benchmarks are updated every five years following the Census of Population and Housing. From February 2004, LFS estimates are being compiled using revised population benchmarks based on results from the 2001 census. LFS estimates for the period January 1999 to January 2004 have been revised based on the updated population benchmarks.

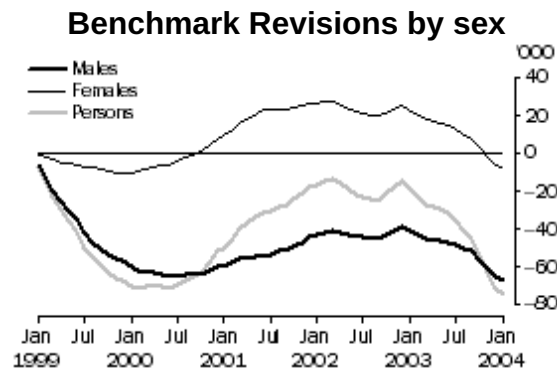
At the same time, the ABS has taken the opportunity to make several other changes to detailed original data at the unit record level. These changes include:

- introduction of regional population benchmarks
- revision of historical unit record data for definitional changes introduced in April 2001
- implementation of a minor change to the definition of unemployment involving the treatment of future starters not actively looking for work
- a change to coding of industry and occupation.

This note provides a summary of the main changes and their impact on LFS estimates. Further information can be found in **Information Paper: Forthcoming Changes to Labour Force Statistics** (cat. no. 6292.0), released on 16 December 2003.

Implementation of Revised Population Benchmarks

The civilian population aged 15 years and over has been revised downward, by no more than 0.5% in any month, for the period January 1999 to January 2004. The largest revision to the civilian population (-74,800) was in January 2004, as shown in the following graph.



Male population benchmarks have been revised downward for the entire period (to a maximum of 0.9%), the largest revision being -67,100 in January 2004. In contrast, female population benchmarks have been predominantly revised upward (to a maximum of 0.3%), with the largest revision being +27,400 in March 2002.

Changes to civilian population benchmarks are not uniform across age groups. Benchmarks for age groups in the 20-29 year range have decreased significantly, with the largest decrease being 162,800 in January 2004. People in the 20-29 year age group have relatively high labour force participation rates. Benchmarks for older age groups have generally increased, but these increases only partly offset the falls in the younger age groups. The largest increase in the older age groups is for persons aged 65 years and over, an age group with a very low labour force participation rate.

As a result of the benchmark changes, over the period January 1999 to January 2004:

- employed persons have been revised down by an average of 66,300;
- unemployed persons have been revised down by an average of 8,100;
- the unemployment rate has been revised down by an average of 0.03 percentage points; and
- the participation rate has been revised down by an average of 0.32 percentage points.

Unemployed persons, the unemployment rate, and the participation rate are also affected by the definitional change involving future starters. See the relevant section below.

Because of age compositional effects, the downward revision to employment estimates is larger than the downward revision to the civilian population, with the largest revision being -100,200 for the January 2004 estimate. The graph below compares trend estimates for the period January 1999 to January 2004 before and after the revisions.

Employed Persons



Regional Benchmarks

Prior to the current benchmark revision, population benchmarks used in the LFS were classified by state/territory of usual residence, capital city/rest of state, age and sex. In addition to these population benchmarks, from February 2004 the LFS uses population benchmarks for labour force region by sex. There are currently 68 labour force regions across Australia. The introduction of regional benchmarks improves the quality of estimates for labour force regions without compromising the quality of estimates at national, state and territory levels.

LFS estimates for labour force regions (available each month in electronic products) have been revised back to January 1999.

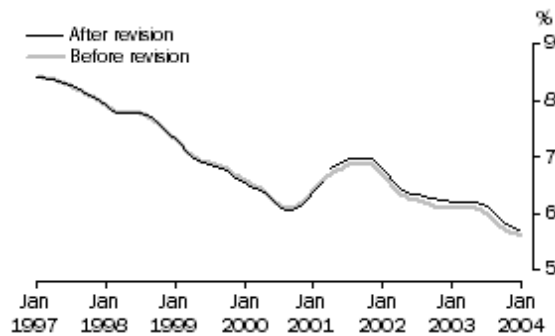
Definitional Change for Future Starters

A minor change has been made to the definition of unemployed persons. The change relates to a small group of persons ('future starters') who had not actively looked for work because they were waiting to start a new job within four weeks from the end of the survey reference week, and could have started in the reference week if the job had been available then. These persons were previously classified as 'not in the labour force'. From February 2004 they are classified as unemployed, in line with International Labour Organisation guidelines.

Data to support this change has been available since the new LFS questionnaire was introduced in April 2001. However, the ABS announced then that, due to concerns that such a change could result in a break in some core labour force series, implementation of the change would be deferred until February 2004. LFS estimates have been revised back to April 2001 to reflect this change. Around 15,000 persons per month (on average) have been reclassified from 'not in the labour force' to unemployed. This revision creates a small trend break at April 2001 in unemployed persons and unemployment rate series.

The effect of the definitional change on the unemployment rate is to revise it upwards by an average of 0.15 percentage points over the period from April 2001. When combined with the downward effects of the revised population benchmarks, the unemployment rate has been revised upwards over this period by an average of 0.11 percentage points. The graph below compares trend estimates of the unemployment rate for the period January 1999 to January 2004 before and after both sets of revisions.

Unemployment Rate



The effect of the definitional change on the participation rate is to revise it upwards by an average of 0.10 percentage points over the period from April 2001. When combined with the downward effects of the revised population benchmarks, the participation rate has been revised downwards over this period by an average of 0.27 percentage points.

Seasonal reanalysis

As a result of the revisions outlined above a reanalysis has been conducted on all seasonally adjusted LFS series. This reanalysis examines series for trend breaks, seasonal breaks, and outliers, and in this instance coincides with the normal annual reanalysis conducted at this time.

Further Information

Electronic products (cat. no. 6202.0.55.001) associated with this publication also contain revised data. In addition, more detailed products associated with the second release of LFS data (cat. no. 6291.0.55.001) have been re-issued today containing revised data up to, and including, January 2004. Second release products, including February 2004 estimates, will be released on 18 March 2004, in accordance with the standard timetable.

If users have any queries regarding the implementation of any of these changes to the LFS, they should contact Peter Bradbury on Canberra (02) 6252 6565, or via email at <peter.bradbury@abs.gov.au>.

About this Release

ABOUT THIS RELEASE

Summary results of the monthly Labour Force Survey containing estimates of employed and unemployed persons classified by sex, full-time/part-time status, states and territories and some age groups; and persons not in the labour force.

6202.0 was published as Labour Force, Australia, Preliminary until March 2003. As the publication had provided final summary data for a number of years to that point, the misleading qualification preliminary was removed from the April 2003 issue onwards.

Explanatory Notes

Explanatory Notes

INTRODUCTION

1 This publication contains estimates of the civilian labour force derived from the Labour Force Survey component of the Monthly Population Survey. More detailed estimates are released one week after this publication in various electronic formats - see **Labour Force, Australia, Detailed - Electronic Delivery** (cat. no. 6291.0.55.001).

CONCEPTS, SOURCES AND METHODS

2 The conceptual framework used in Australia's Labour Force Survey aligns closely with the standards and guidelines set out in Resolutions of International Conferences of Labour Statisticians. Descriptions of the underlying concepts and structure of Australia's labour force statistics, and the sources and methods used in compiling the estimates, are presented in **Labour Statistics: Concepts, Sources and Methods** (cat. no. 6102.0) which is also available on the ABS web site (About Statistics-Concepts and Classifications).

MONTHLY POPULATION SURVEY

3 The population survey is based on a multi-stage area sample of private dwellings (currently about 30,000 houses, flats, etc.) and a list sample of non-private dwellings (hotels, motels, etc.), and covers about 0.45% of the population of Australia. The information is obtained from the occupants of selected dwellings by specially trained interviewers. The information obtained relates to the week before the interview (i.e. the reference week).

4 Households selected for the Labour Force Survey are interviewed each month for 8 months, with one eighth of the sample being replaced each month. The first interview is conducted face-to-face. Subsequent interviews are conducted by telephone (if acceptable to the respondent).

5 The interviews are generally conducted during the two weeks beginning on the Monday between the 6th and 12th of each month. Each year, to deal with operational difficulties involved with collecting and processing the Labour Force Survey around the Christmas and New Year holiday period, interviews for December start four weeks after November interviews start, and January interviews start five weeks after December interviews start. As a result, January interviewing may commence as early as the 8th or as late as the 14th, depending on the year. Occasionally, circumstances that present significant operational difficulties for survey collection can result in a change to the normal pattern for the start of interviewing.

6 Estimates from the Labour Force Survey are published first in this publication 31 days after the commencement of interviews for that month, with the exception of estimates for each December which are published 38 days after the commencement of interviews.

SCOPE OF SURVEY

7 The Labour Force Survey includes all persons aged 15 years and over except members of the permanent defence forces, certain diplomatic personnel of overseas governments customarily excluded from census and estimated population counts, overseas residents in Australia, and members of non-Australian defence forces (and their dependants) stationed in Australia.

COVERAGE

8 In the Labour Force Survey, coverage rules are applied which aim to ensure that each person is associated with only one dwelling, and hence has only one chance of selection. The coverage rules are necessarily a balance between theoretical and operational considerations. Nevertheless, the chance of a person being enumerated at two separate dwellings in the survey is considered to be negligible.

POPULATION BENCHMARKS

9 Labour Force Survey estimates are calculated in such a way as to add up to independent estimates of the civilian population aged 15 and over (population benchmarks). From February 2004, labour force estimates have been compiled using benchmarks based on the results of the 2001 Census of Population and Housing. Revisions were made to historical estimates from January 1999 to January 2004.

COMPARABILITY OF SERIES

10 From April 1986, the definition of employed persons was changed to include persons who worked without pay between 1 and 14 hours per week in a family business or on a farm (i.e. contributing family workers). For further information, see paragraphs 36 and 37 of the Explanatory Notes to the February 1987 issue of **Labour Force, Australia (cat. no. 6203.0)**.

11 The ABS introduced telephone interviewing into the Labour Force Survey in August 1996. Implementation was phased in for each new sample group from August 1996 to February 1997. During the period of implementation, the new method produced different estimates than would have been obtained under the old methodology. The effect dissipated over the final months of implementation and was no longer discernible from February 1997. The estimates for February 1997 and onwards are directly comparable to estimates for periods prior to August 1996. For further details, see the feature article in the June 1997 issue of **Labour Force, Australia (cat. no. 6203.0)**.

12 From April 2001 the Labour Force Survey has been conducted using a redesigned questionnaire containing additional data items and some minor definitional changes. The definition of unemployed persons was changed to include all persons who were waiting to start work and were available to start in the reference week. This change was introduced in February 2004, when historical unit record data were revised from April 2001 to January 2004. For further details, see **Information Paper: Forthcoming Changes to Labour Force Statistics** (cat. no. 6292.0).

13 Core labour force series were revised in April 2001 for the period April 1986 to March 2001 for the remaining definitional changes introduced with the redesigned questionnaire, to reduce the impact of the changes on labour force series. For further details, see **Information Paper: Implementing the Redesigned Labour Force Survey Questionnaire** (cat. no. 6295.0) and **Information Paper: Questionnaires Used in the Labour Force Survey** (cat. no. 6232.0).

SURVEY SAMPLE REDESIGN

14 The Labour Force Survey sample was last reselected using information collected in the 2001 Census of Population and Housing.

15 The bulk of the new sample was phased in over the period November 2002 to June 2003, with one eighth of this portion of the sample being introduced every month. The remainder of the sample (about 18% of the total), which covers less settled areas of Australia and non-private dwellings was rotated in full for New South Wales, Victoria, Tasmania, Northern Territory and Australian Capital Territory in November 2002, and for Queensland, South Australia and Western Australia in December 2002. Such a pattern of implementation means that any changes to labour force estimates due to differences between the two samples, or any other influences, were spread over the eight months.

16 For further details, see **Information Paper: Labour Force Survey Sample Design** (cat. no. 6269.0) and **Technical Report: New Labour Force Survey sample selections: analysis of the effect on estimates** in the October 2003 issue of **Australian Labour Market Statistics** (cat. no. 6105.0).

RELIABILITY OF ESTIMATES

17 Two types of error are possible in an estimate based on a sample survey: sampling error and non-sampling error.

Sampling error occurs because a sample, rather than the entire population, is surveyed. One measure of the likely difference resulting from not including all dwellings in the survey is given by the standard error. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all dwellings had been included in the survey, and about nineteen chances in twenty that the difference will be less than two standard errors. Standard errors of estimates for the latest month and of estimates of movements since the previous month are shown on pages 27 and 28. Standard errors of other estimates and other movements may be determined by using information in **Information Paper: Labour Force Survey Standard Errors** (cat. no. 6298.0) which is available free on the ABS web site (About Statistics-Information Papers).

Non sampling error arises from inaccuracies in collecting, recording and processing the data. Every effort is made to minimise reporting error by the careful design of questionnaires, intensive training and supervision of interviewers, and efficient data processing procedures.

SEASONAL ADJUSTMENT AND TREND ESTIMATION

18 Seasonal adjustment is a means of removing the estimated effects of normal seasonal variation from the series so that the effects of other influences on the series can be more clearly recognised. Seasonal adjustment does not aim to remove the irregular or non-seasonal influences which may be present in any particular month. This means that month-to-month movements of the seasonally adjusted estimates may not be reliable indicators of trend behaviour.

19 The Labour Force Survey uses the concurrent seasonal adjustment method to derive seasonal factors. Concurrent seasonal adjustment uses data up to the current month to estimate seasonal factors for the current and all previous months. This process can result in revisions each month to estimates for earlier periods. However, in most instances, the only noticeable revisions will be to the seasonally adjusted estimates for the previous month and one year prior to the current month.

20 Seasonal adjustment is able to remove the effect of events which occur at the same time in the survey every year. However, there are some events, like holidays, which are not always at the same time in the survey cycle or which are not at the same time across Australia. The effects of these types of events on LFS estimates cannot in all cases be removed, because the pattern of their effects cannot be determined. However, two events which are adjusted for in the seasonally adjusted series are the January interview start date and the timing of Easter.

21 For more information on concurrent seasonal adjustment and survey proximity to holiday periods, see **Information Paper: Forthcoming Changes to Labour Force Statistics** (cat. no. 6292.0).

22 While seasonal factors for the complete time series are estimated each month, they will continue to be reviewed annually at a more detailed level to take into account each additional year's original data. This annual review will not normally result in significant changes to published estimates. The review will be conducted in February each year with the results released in the February issue of this publication.

23 The smoothing of seasonally adjusted series to produce 'trend' series reduces the impact of the irregular component of the seasonally adjusted series. These trend estimates are derived by applying a 13-term Henderson-weighted moving average to all months except the last six. The last six monthly trend estimates are obtained by applying surrogates of the Henderson average to the seasonally adjusted series. Trend estimates are used to analyse the underlying behaviour of a series over time.

24 While this smoothing technique enables estimates to be produced for the latest month, it does result in revisions in addition to those caused by the revision of seasonally adjusted estimates. Generally, revisions due to the use of surrogates of the Henderson average

become smaller, and after 3 months have a negligible impact on the series.

25 Trend estimates are published for the Northern Territory in table 10 and for the Australian Capital Territory in table 11. Unadjusted series for the two territories have shown, historically, a high degree of variability, which can lead to considerable revisions to the seasonally adjusted estimates each month when seasonal factors are estimated. For this reason, seasonally adjusted estimates are not currently published for the two Territories. In addition, caution should be exercised in the interpretation of trend estimates for the two territories, particularly for the three most recent months, where revisions may be relatively large.

26 For further information, see **A Guide to Interpreting Time Series-Monitoring 'Trends': an Overview** (cat. no. 1348.0) or contact the Assistant Director, Time Series Analysis on (02) 6252 6345.

RELATED PUBLICATIONS

27 Users may also wish to refer to **Australian Labour Market Statistics** (cat. no. 6105.0). This publication contains additional tables and a detailed list of related publications. For further information about this publication, please contact the Assistant Director, Labour Market Statistics on (02) 6252 7636.

28 ABS Information about the labour market can be found on the Labour theme page on the ABS web site (Themes-People, Labour), or from ABS Bookshops.

29 Current publications and other products released by the ABS are listed in the **Catalogue of Publications and Products (cat. no. 1101.0)**. The Catalogue is available from any ABS office or the ABS web site (Products and Services). The ABS also issues a daily Release Advice on the web site (Information on Releases) which details products to be released in the week ahead.

DATA AVAILABLE ON REQUEST

30 As well as the statistics included in this and related publications, the ABS may have other relevant data available. Inquiries should be made to Michael Johnson on (02) 6252 6525 or to any ABS office.

EFFECTS OF ROUNDING

31 Estimates have been rounded and discrepancies may occur between sums of the component items and totals.

32 Estimates of movement shown in this publication are obtained by taking the difference of unrounded estimates. The movement estimate is then rounded to one decimal place. Therefore where a discrepancy occurs between the reported movement and the difference of the rounded estimates, the reported movement will be more accurate.

SYMBOLS AND OTHER USAGES

33 SYMBOLS AND OTHER USAGES

pts percentage points

Glossary

Actively looking for work

Includes writing, telephoning or applying in person to an employer for work; answering an advertisement for a job; checking factory noticeboards or the touchscreens at the Centrelink offices; being registered with Centrelink as a jobseeker; checking or registering with any other employment agency; advertising or tendering for work; and contacting friends or relatives.

Attending full-time education

Persons aged 15 to 24 years enrolled at secondary or high school or enrolled as a full time student at a Technical and Further Education (TAFE) college, university, or other educational institution in the reference week.

Attending school

Persons aged 15 to 19 years enrolled at secondary or high school in the reference week.

Attending tertiary educational institution full time

Persons aged 15 to 24 years enrolled full time at a TAFE college, university, or other educational institution in the reference week, except those persons aged 15 to 19 years who were still attending school.

Civilian population aged 15 years and over

All usual residents of Australia aged 15 years and over except members of the permanent defence forces, certain diplomatic personnel of overseas governments customarily excluded from census and estimated population counts, overseas residents in Australia, and members of non-Australian defence forces (and their dependants) stationed in Australia.

Employed

All persons aged 15 years and over who, during the reference week:

- worked for one hour or more for pay, profit, commission or payment in kind in a job or business, or on a farm (comprising employees, employers and own account workers); or
- worked for one hour or more without pay in a family business or on a farm (i.e. contributing family workers); or
- were employees who had a job but were not at work and were:
 - away from work for less than four weeks up to the end of the reference week; or
 - away from work for more than four weeks up to the end of the reference week and received pay for some or all of the four week period to the end of the reference week; or
 - away from work as a standard work or shift arrangement; or
 - on strike or locked out; or
 - on workers' compensation and expected to return to their job; or
- were employers or own account workers, who had a job, business or farm, but were not at work.

Employment to population ratio

For any group, the number of employed persons expressed as a percentage of the civilian population in the same group.

Full-time workers

Employed persons who usually worked 35 hours or more a week (in all jobs) and those who, although usually working less than 35 hours a week, worked 35 hours or more during the reference week.

Labour force

For any group, persons who were employed or unemployed, as defined.

Labour force status

A classification of the civilian population aged 15 years and over into employed, unemployed or not in the labour force, as defined. The definitions conform closely to the international standard definitions adopted by the International Conferences of Labour Statisticians.

Not in labour force

Persons who were not in the categories employed or unemployed as defined.

Participation rate

For any group, the labour force expressed as a percentage of the civilian population aged 15 years and over in the same group.

Part-time workers

Employed persons who usually worked less than 35 hours a week (in all jobs) and either did so during the reference week, or were not at work in the reference week.

Seasonally adjusted series

A time series of estimates with the estimated effects of normal seasonal variation removed. See Explanatory Notes 18 to 22 for more detail.

Trend series

A smoothed seasonally adjusted series of estimates. See Explanatory Notes 23 to 25 for more detail.

Unemployed

Persons aged 15 years and over who were not employed during the reference week, and:

- had actively looked for full-time or part-time work at any time in the four weeks up to the end of the reference week and were available for work in the reference week; or
- were waiting to start a new job within four weeks from the end of the reference week and could have started in the reference week if the job had been available then.

Unemployed looking for full-time work

Unemployed persons who:

- actively looked for full-time work; or
- were waiting to start a new full-time job.

Unemployed looking for part-time work

Unemployed persons who:

- actively looked for part-time work; or
- were waiting to start a new part-time job.

Unemployment rate

For any group, the number of unemployed persons expressed as a percentage of the labour force in the same group.

Unemployment to population ratio

For any group, the number of unemployed persons expressed as a percentage of the civilian population in the same group.

What If

Effect of new seasonally adjusted estimates on trend estimates

TREND REVISIONS

Each time new seasonally adjusted estimates become available, trend estimates are revised. This revision is a combined result of the concurrent seasonal adjustment process and the application of surrogates of the Henderson average to the seasonally adjusted series (see paragraphs 18 to 24 of Explanatory Notes).

The examples in the tables below show two illustrative scenarios and the consequent revisions to previous trend estimates of employment and the unemployment rate. The revisions in the scenarios below are only due to the use of surrogates of the Henderson average, as the impact of revision of the seasonally adjusted estimates can not be estimated in advance.

(1) The March seasonally adjusted estimate is higher than the February estimate by:

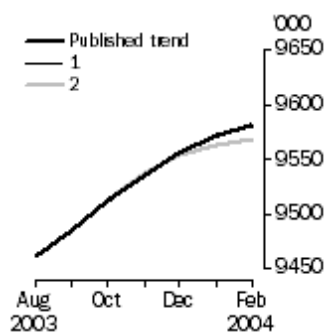
- 0.27% for employment
- 1.80% for the unemployment rate

(2) The March seasonally adjusted estimate is lower than the February estimate by:

- 0.27% for employment
- 1.80% for the unemployment rate

The percentage changes of 0.27% and 1.80% were chosen because they represent the average absolute monthly percentage changes in employment and the unemployment rate respectively.

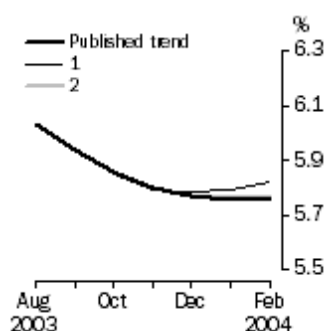
Employment



WHAT IF NEXT MONTH'S SEASONALLY ADJUSTED ESTIMATE IS:

	Trend as published	(1) 9598.6 i.e. rises by 0.27%	(2) 9546.9 i.e. falls by 0.27%
2003			
November	9,536.0	9,535.9	9,536.8
December	9,555.9	9,555.9	9,553.6
2004			
January	9,571.6	9,571.3	9,563.6
February	9,580.9	9,583.5	9,569.1

Unemployment Rate



WHAT IF NEXT MONTH'S SEASONALLY ADJUSTED ESTIMATE IS:

	Trend as published	(1) 6.0 i.e. rises by 1.80%	(2) 5.8 i.e. falls by 1.80%
2003			
November	5.8	5.8	5.8
December	5.8	5.8	5.8
2004			
January	5.8	5.8	5.8
February	5.8	5.8	5.8

Quality Measures (Technical Note)

Technical Note - Quality Measures

Standard errors

The estimates in this publication are based on information gained from the occupants of a sample survey of dwellings. Because the entire population is not surveyed, the published estimates are subject to sampling error. The most common way of quantifying such sampling error is to calculate the standard error for the published estimate or statistic. For more information, see paragraph 17 of the Explanatory Notes.

LEVEL ESTIMATES

To illustrate, let us say the published level estimate for employed persons aged 15 to 19 is 700,000. The calculated standard error in this case is 9,800. The standard error is then used to interpret the level estimate of 700,000. For instance, the standard error of 9,800 indicates that:

- There are approximately two chances in three that the real value falls within the range 690,200 to 709,800 ($700,000 \pm 9,800$)
- There are approximately nineteen chances in twenty that the real value falls within the range 680,400 to 719,600 ($700,000 \pm 19,600$).

The real value in this case is the result we would obtain if we could enumerate the total

population.

The following table shows the standard errors for this month's level estimates.

AUSTRALIA										
NSW Vic. Qld SA WA Tas. NTACT Males Females Persons										
Aged 15 and over										
Employed										
Full time	'000	18.7	14.2	11.2	5.0	5.5	1.9	1.2	1.8	21.8
Part time	'000	10.7	8.6	7.7	3.7	4.1	1.4	0.8	1.1	10.2
Total	'000	22.7	17.0	12.6	5.9	6.1	2.1	1.4	2.1	24.0
Unemployed										
Looking for f/t work	'000	5.3	4.1	4.1	1.9	2.2	0.8	0.4	0.5	7.0
Looking for p/t work	'000	3.8	3.2	2.7	1.3	1.5	0.4	0.3	0.4	4.1
Total	'000	5.8	4.7	4.7	2.2	2.4	0.8	0.5	0.6	7.6
Labour force	'000	23.6	17.6	13.0	6.0	6.2	2.2	1.4	2.1	25.1
Not in labour force	'000	17.2	12.9	10.2	5.0	5.0	1.9	1.0	1.4	15.6
Unemployment rate										
Looking for f/t work	pts	0.2	0.2	0.3	0.4	0.3	0.5	0.6	0.4	0.1
Looking for p/t work	pts	0.4	0.4	0.5	0.5	0.5	0.6	1.1	0.8	0.5
Total	pts	0.2	0.2	0.2	0.3	0.2	0.4	0.5	0.3	0.1
Participation rate	pts	0.4	0.4	0.4	0.5	0.4	0.6	1.0	0.8	0.3
Aged 15 - 19										
Employed										
Full time	'000	4.3	3.0	3.1	1.3	1.8	0.6	0.4	0.4	5.6
Part time	'000	5.3	4.1	4.0	1.8	2.2	0.7	0.4	0.6	6.1
Total	'000	6.1	4.6	4.8	2.1	2.6	0.8	0.5	0.7	7.6
Unemployed										
Looking for f/t work	'000	2.8	1.8	2.0	0.9	1.2	0.4	0.2	0.3	3.4
Looking for p/t work	'000	2.7	2.3	1.8	0.9	1.1	0.2	0.2	0.3	3.1
Total	'000	3.6	2.7	2.5	1.2	1.5	0.4	0.2	0.4	4.3
Labour force	'000	6.5	5.0	5.2	2.3	2.8	0.9	0.5	0.7	8.2
Not in labour force	'000	5.5	4.5	3.7	1.8	2.2	0.8	0.5	0.6	6.9
Unemployment rate										
Looking for f/t work	pts	2.7	3.3	2.7	3.8	2.9	3.6	5.7	6.1	1.7
Looking for p/t work	pts	1.5	1.7	1.5	2.2	2.0	1.9	5.4	2.6	1.4
Total	pts	1.3	1.4	1.3	1.9	1.6	2.0	3.7	2.4	1.0
Participation rate	pts	1.4	1.5	1.9	2.2	1.9	2.6	3.7	3.1	1.2
Unemployment to population ratio - looking for f/t work	pts	0.6	0.5	0.7	0.9	0.8	1.1	1.2	1.3	0.5

MOVEMENT ESTIMATES

The following example illustrates how to use the standard error to interpret a movement estimate. Let us say that one month the published level estimate for females employed part time in Australia is 1,890,000; the next month the published level estimate is 1,900,000. The calculated standard error for the movement estimate is 10,300. The standard error is then used to interpret the published movement estimate of 10,000. For instance, the standard error of 10,300 indicates that:

- There are approximately two chances in three that the real movement between the two months falls within the range -300 to 20,300 (10,000 + or - 10,300)
- There are approximately nineteen chances in twenty that the real movement falls within the range -10,600 to 30,600 (10,000 + or - 20,600).

The following table shows the standard errors for this month's movement estimates.

AUSTRALIA

NSW Vic. Qld SA WA Tas. NT ACT Males Females Persons

Aged 15 and over										
Employed										
	Full time	'000	10.0	7.6	6.9	3.1	3.9	1.3	1.1	1.0
	Part time	'000	7.1	5.5	5.0	2.4	2.9	0.9	0.7	0.7
	Total	'000	11.1	8.5	7.7	3.6	4.4	1.4	1.2	1.1
Unemployed										
	Looking for f/t work	'000	4.0	3.0	2.9	1.3	1.7	0.6	0.4	0.4
	Looking for p/t work	'000	2.8	2.3	2.1	0.9	1.2	0.3	0.2	0.3
	Total	'000	4.4	3.4	3.2	1.5	1.8	0.6	0.4	0.4
Labour force										
		'000	11.3	8.7	7.9	3.7	4.5	1.5	1.2	1.2
Not in labour force										
		'000	9.6	7.3	6.4	3.1	3.6	1.3	0.9	0.9
Unemployment rate										
	Looking for f/t work	pts	0.2	0.2	0.2	0.3	0.2	0.4	0.5	0.3
	Looking for p/t work	pts	0.3	0.3	0.4	0.4	0.4	0.5	0.9	0.6
	Total	pts	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.2
Participation rate										
		pts	0.2	0.2	0.3	0.3	0.3	0.4	0.8	0.5
Aged 15 - 19										
Employed										
	Full time	'000	3.3	2.3	2.4	1.0	1.4	0.5	0.3	0.3
	Part time	'000	4.0	3.0	2.8	1.3	1.6	0.5	0.3	0.4
	Total	'000	4.6	3.4	3.3	1.5	1.9	0.6	0.4	0.5
Unemployed										
	Looking for f/t work	'000	2.1	1.5	1.6	0.8	1.1	0.3	0.1	0.2
	Looking for p/t work	'000	2.1	1.7	1.5	0.7	0.9	0.2	0.2	0.2
	Total	'000	2.6	2.0	1.9	0.9	1.2	0.3	0.2	0.3
Labour force										
		'000	4.9	3.7	3.6	1.6	2.1	0.6	0.4	0.5
Not in labour force										
		'000	4.2	3.3	2.6	1.3	1.7	0.6	0.5	0.4
Unemployment rate										
	Looking for f/t work	pts	2.0	2.4	2.1	2.8	2.3	2.7	5.4	4.9
	Looking for p/t work	pts	1.2	1.3	1.3	1.7	1.6	2.2	4.6	2.2
	Total	pts	0.9	1.0	1.0	1.4	1.2	1.6	3.1	1.9
Participation rate										
		pts	1.1	1.1	1.3	1.5	1.4	1.9	3.0	2.2
Unemployment to population ratio - looking for f/t work										
		pts	0.5	0.5	0.6	0.7	0.7	0.9	1.1	1.0

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